



Lancaster Laboratories
Environmental

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Analysis Report

Partial Report

Sample Description:

Ex. 6 - Personal Privacy

Tetra Tech, Inc.
ELLE Sample #:
ELLE Group #:
Matrix: Water

Ex. 6 - Personal Privacy

Project Name:

Wolverine World Wide Tannery

Submittal Date/Time: 12/29/2017 10:00

Collection Date/Time: 12/27/2017 12:07

SDG#: Ex. 6 - Personal Privacy

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Misc. Organics		EPA 537 Version 1.1	ng/l	ng/l	
14070	NEtFOSAA	2991-50-6	N.D.	2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
14070	NMeFOSAA	2355-31-9	N.D.	2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				
14070	Perfluorobutanesulfonate	375-73-5	16	2	1
14070	Perfluorodecanoic acid	335-76-2	N.D.	2	1
14070	Perfluorododecanoic acid	307-55-1	N.D.	2	1
14070	Perfluoroheptanoic acid	375-85-9	13	2	1
14070	Perfluorohexanesulfonate	355-46-4	36	2	1
14070	Perfluorohexanoic acid	307-24-4	11	2	1
14070	Perfluorononanoic acid	375-95-1	N.D.	2	1
14070	Perfluoro-octanesulfonate	1763-23-1	530	20	10
14070	Perfluorooctanoic acid	335-67-1	110	20	10
14070	Perfluorotetradecanoic acid	376-06-7	N.D.	3	1
14070	Perfluorotridecanoic acid	72629-94-8	N.D.	2	1
14070	Perfluoroundecanoic acid	2058-94-8	N.D.	2	1

The recovery for native compound PFHxS in the laboratory fortified blank (LFB) is outside of QC acceptance limits as noted on the QC Summary. The sample was re-extracted and the recovery for PFHxS is again outside of QC acceptance limits in the LFB/LFBD. The recovery for several surrogates was also outside of QC acceptance limits in the re-extracted sample. Comparable results were observed between the two extractions with the exception of PFOA, PFHxS and PFOS. Both sets of data are included in the data package.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14070	Full List PFAS - DW	EPA 537 Version 1.1	1	18008004	01/09/2018 22:28	Marissa C Drexinger	1
14070	Full List PFAS - DW	EPA 537 Version 1.1	1	18008004	01/10/2018 18:36	Marissa C Drexinger	10

Reference ID:
1891712160118143221

Environmental Analysis Request/Chain of Custody



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Acct. # 10459 Group # 1891712 Sample # 9388817-45

COC # 540829

Client Information						Matrix			Analysis Requested								For Lab Use Only			
Client: MSG/Tetra Tech			Acct. #:			<input type="checkbox"/> Tissue <input type="checkbox"/> Ground <input type="checkbox"/> Surface	<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Potable NPDES	<input type="checkbox"/> Water Other:	Total # of Containers	Preservation Codes								FSC:	SCR#:	
Project Name/#: Wolverine World Wide			PWSID #:															Preservation Codes H=HCl T=Thiosulfate N=HNO ₃ B=NaOH S=H ₂ SO ₄ O=Other		
Project Manager: BRENT RITCHIE			P.O. #: 217808											Remarks						
Sampler: BLR / C. Remar			Quote #:																	
State where samples were collected: MI			For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																	
Sample Identification			Collected		Grab	Composite	Soil	Water	Other:	PFAS										
			Date	Time																
Ex. 6 - Personal Privacy			12/17	0835	X					1	X									
				0838	X					2	X									
				0851	X					2	X									
				0946	X					1	X									
				0950	X					2	X									
				0955	X					6	X									
				1054	X					1	X									
				1057	X					2	X									
				1102	X					2	X									
Turnaround Time (TAT) Requested (please circle) Standard Rush			Relinquished by			Date	Time	Received by			Date	Time								
(Rush TAT is subject to laboratory approval and surcharge.)			Relinquished by			Date	Time	Received by			Date	Time								
Date results are needed: 5-DAY			Relinquished by			Date	Time	Received by			Date	Time								
E-mail address: britchiery.mamichsmithgroup.com			Relinquished by			Date	Time	Received by			Date	Time								
Data Package Options (circle if required)			Relinquished by			Date	Time	Received by			Date	Time								
Type I (EPA Level 3 Equivalent/non-CLP)	Type VI (Raw Data Only)																			
Type III (Reduced non-CLP)	NJ DKQP	TX TRRP-13																		
NYSDEC Category A or B	MA MCP	CT RCP																		
EDD Required? Yes No			If yes, format:			Site-Specific QC (MS/MSD/Dup)? Yes No			Relinquished by Commercial Carrier:											
						(If yes, indicate QC sample and submit triplicate sample volume.)			UPS FedEx X Other											
									Temperature upon receipt 0.4/1.0 °C											

Environmental Analysis Request/Chain of Custody



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Acct. # 10459 Group # 1891712 Sample # 9388817

COC # 540830

Client Information				Matrix				Analysis Requested												For Lab Use Only			
Client:		Acct. #:		<input type="checkbox"/> Tissue <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Sediment <input type="checkbox"/> Potable <input checked="" type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Other:		Preservation Codes 0												FSC: _____					
Project Name/##:		PWSID #:																SCR#: _____					
Project Manager:		P.O. #:														Preservation Codes H=HCl T=Thiosulfate N=HNO ₃ B=NaOH S=H ₂ SO ₄ O=Other							
Sampler:		Quote #:														Remarks 							
State where samples were collected:		For Compliance:		<input type="checkbox"/> Soil <input type="checkbox"/> Composite																			
<u>MI</u>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																					
Sample Identification		Collected		Grab	Composite	Soil	Water	Other:	Total # of Containers														
Date	Time																						
Ex. 6 - Personal Privacy	12/21/17	1156	X						1	X													
		1202	X						2	X													
		1207	X						2	X													
		1207	X						2	X													
		1250	X						1	X													
		1253	X						2	X													
		1258	X						2	X													
		1438	X						1	X													
	1440	X						2	X														
	1445	X						2	X														

Turnaround Time (TAT) Requested (please circle) Standard <u>Rush</u> (Rush TAT is subject to laboratory approval and surcharge.)		Relinquished by: <u>[Signature]</u> Date: <u>12.29.17</u> Time: <u>2:00</u>		Received by: _____ Date: _____ Time: _____	
Date results are needed: <u>5-day</u>		Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____	
E-mail address: <u>britchie@manishsmithgroup.com</u>		Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____	
Data Package Options (circle if required) Type I (EPA Level 3 Equivalent/non-CLP) Type III (Reduced non-CLP) NYSDEC Category A or B		Type VI (Raw Data Only) <u>Level IV</u> NJ DKQP TX TRRP-13 MA MCP CT RCP		Relinquished by: _____ Date: <u>1/4/18</u> Time: <u>10:00</u>	
		EDD Required? <u>Yes</u> No If yes, format: _____		Relinquished by Commercial Carrier: UPS _____ FedEx <u>X</u> Other _____	
		Site-Specific QC (MS/MSD/Dup)? <u>Yes</u> No (If yes, indicate QC sample and submit triplicate sample volume.)		Temperature upon receipt <u>1.3</u> °C	

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0216

Environmental Analysis Request/Chain of Custody



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Acct. # 10459 Group # 1891712 Sample # 9388817-45

COC # 540817

[illegible]

Environmental Analysis Request/Chain of Custody



**Lancaster Laboratories
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Acct. # 10459 Group # 1891712 Sample # 9388817-45

COC # 540816

[illegible]



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Sample Administration Receipt Documentation Log

Doc Log ID: 205017



Group Number(s): 1891712

Client: MSG/TETRA TECH

Delivery and Receipt Information

Delivery Method:	<u>Fed Ex</u>	Arrival Timestamp:	<u>12/29/2017 10:00</u>
Number of Packages:	<u>4</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>MI</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace \geq 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Wendy Wakeley (1669) at 11:06 on 12/29/2017

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	3.6	DT	Wet	Y	Bagged	N
2	DT146	1.3	DT	Wet	Y	Bagged	N
3	DT146	0.4	DT	Wet	Y	Bagged	N
4	DT146	1.0	DT	Wet	Y	Bagged	N



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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	non-detect
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
J (or G, I, X)	Estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.

Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.